

**Statement before the
Subcommittee on Consumer
Affairs, Foreign Commerce,
and Tourism**

**U.S. Senate
Committee on Commerce,
Science, and Transportation**

**Child restraints and
booster seats**

Adrian K. Lund

April 24, 2001

INSURANCE INSTITUTE FOR HIGHWAY SAFETY

1005 N. GLEBE RD. ARLINGTON, VA 22201-4751

PHONE 703/247-1500 FAX 703/247-1678

website <http://www.highwaysafety.org>

The Insurance Institute for Highway Safety is a nonprofit research and communications organization that identifies ways to reduce motor vehicle crashes and crash losses. I am the Institute's chief operating officer, and I am here to discuss the issue of child occupant protection — in particular, the advisability of requiring booster seats.

Main issue is whether restraints are used

The proportion of children who ride restrained has increased markedly since the early 1980s,^{1,2} but too many children still ride unrestrained. The results are deadly. In 1999, more than 1,300 child passengers (12 and younger) died in crashes. Only 36 percent of them were restrained. Another 14 percent were either improperly restrained (in all likelihood, gross misuse of the child seat or safety belt)

CHILDREN KILLED IN PASSENGER VEHICLES, 1999							
AGE	COUNT	UNRESTRAINED		UNKNOWN/ IMPROPER RESTRAINT		RESTRAINED	
		NO.	PERCENT	NO.	PERCENT	NO.	PERCENT
0-3 years	451	172	38%	80	18%	199	44%
4-6 years	281	148	53%	37	13%	96	34%
7-8 years	215	119	55%	33	15%	63	29%
9-12 years	362	212	59%	33	9%	117	32%
TOTAL	1,309	651	50%	183	14%	475	36%
Source: Fatality Analysis Reporting System							

or restraint use was unknown. Fifty percent of the children who died were unrestrained. Thus, nearly two of every three child deaths probably involved a failure to use an available restraint system. Among the older children in this group, restraint use was lower than among the infants and youngest children (0-3 years old).

So, when it comes to protecting infants and children in motor vehicles, the key issue is whether a restraint system is used — not what type of restraint or whether it is installed precisely as the manufacturer intended (research indicates that, even when restraints are misused, they often provide good protection).³ What matters is that so many children still are riding unprotected by any kind of restraint.

Ratings of state laws based on likelihood of increasing restraint use

The Insurance Institute for Highway Safety always has placed the highest importance on enacting and enforcing laws that require restraint use by all children sitting in all vehicle seats. Last year the Institute rated selected traffic safety laws in every state, based on research indicating the extent to

which the laws enhance highway safety (attachment).⁴ To evaluate laws protecting child passengers, the Institute considered the comprehensiveness of both child restraint and adult belt use laws, which cover older children. The laws that earn the highest ratings provide primary coverage for all children 12 and younger in all vehicle seats. (Primary coverage means police may stop and ticket motorists for restraint violations alone. All child restraint laws are primary, but most adult belt laws are secondary, which means motorists have to be stopped for some other violation first.) Laws with low ratings allow some children to ride unrestrained.

Children too old to be covered under the child restraint laws in 11 states (Alabama, Arizona, Idaho, Illinois, Indiana, Iowa, Minnesota, Mississippi, New Jersey, Ohio, and Pennsylvania) are protected by adult belt laws that apply only to people riding in the front seat. Thus, it is perfectly legal in these states for children to ride unrestrained in rear seats. This makes no sense. The back seat is where we tell parents it is safest for their children to ride, so restraint laws should cover the kids who sit there. Closing such loopholes in the laws should be our highest priority.

In rating the laws, the Institute did not consider what kind of restraint a law requires for children of various ages. Adults could buckle children into rear-facing infant restraints, forward-facing child re-

straints, or adult lap/shoulder belt systems, as appropriate. This reflects the Institute's major concern, which is to ensure that all children in all vehicle seats are restrained all the time.

Restraint use declines after age two

The problem of children riding unrestrained is not uniform from infant through preteen years. Restraint use declines after age two, according to recent Institute surveys conducted in three states. In particular, restraint use drops off precipitously among children ages 3-6 compared with 0-2 year-olds.⁵ We do not know why this is happening, but it means these children are at unnecessary injury risk in crashes.

PERCENT OF CHILDREN RESTRAINED		
	FRONT SEAT	REAR SEAT
<u>MICHIGAN</u>		
younger than 1	82%	96%
1-2 years	69%	98%
3-6 years	56%	44%
7-12 years	69%	39%
<u>NORTH CAROLINA</u>		
younger than 1	89%	94%
1-2 years	83%	96%
3-6 years	66%	57%
7-12 years	79%	39%
<u>TEXAS</u>		
younger than 1	77%	89%
1-2 years	64%	92%
3-6 years	55%	42%
7-12 years	73%	37%
Source: Ferguson, Susan A.; Wells, JoAnn K.; and Williams, Allan F. 2000. Child seating position and restraint use in three states. <i>Injury Prevention</i> 6:24-28.		

Are booster seats the answer?

There is merit in the idea of booster seats for some children who have outgrown their child restraints. Experts agree that a child should use a lap belt that fits over the upper legs or pelvis (not the stomach) and a shoulder belt that crosses the center of the chest (not the face or neck). The knees should bend at the edge of the vehicle seat so the child is not encouraged to slouch down for comfort, displacing the lap belt up over the stomach or perhaps even allowing the child to slide out from under the belt system.

For some children, this level of restraint may not be achievable without a booster seat, so some people would like to require boosters. The idea is that adult belts will fit better, more 3-6 year olds will ride restrained, and these children will be better protected than in adult belts alone. Three states already have passed booster seat requirements covering children to age 6 or 60 pounds: Arkansas, California, and Washington. States also are considering legislation that would extend booster seat requirements to children who weigh less than 80 pounds or are shorter than 57 inches, as recommended on the National Highway Traffic Safety Administration's website.⁶

The Institute believes emphasizing boosters is a misplaced priority. One problem is that it complicates the task of complying with the law. Parents have to buy boosters and have them available for any children they might take along in their cars. A parent who buckles a child into a vehicle's lap/shoulder belt alone would become a lawbreaker, even if no booster were needed to achieve a good belt fit. Adding booster seat requirements for 4-6 year olds without also extending the coverage of child restraint laws to 7-12 year-olds still would leave substantial numbers of children unprotected.

Booster seat requirements still might be a good idea if the boosters were to greatly improve the fit of adult safety belts. But it is not clear that they do. Institute researchers have tried to get a handle on this by buckling two children (a 6-year-old girl 52 inches tall weighing 62 pounds; a 5-year-old boy 45 inches tall weighing 42 pounds) into 6 different booster seats positioned in 3 different passenger vehicles (a small car with contoured seats, a midsize car with bench seats, and a passenger van with captain's chairs). For comparison, the researchers conducted the same placements with a Hybrid III dummy representing a 6-year-old boy (50th percentile height at 45 inches tall; 75th percentile weight at 52 pounds). Sixty-three different placements were assessed, including ones in which no booster seats were used (adult belt systems only).

One finding is that some booster seats are very good — that is, they route the adult lap/shoulder belt correctly — while others provide only marginal improvement in belt fit. Getting a good one does not necessarily mean buying the most expensive one. The Britax Star-Riser is a good choice at \$100. Evenflo's Right Fit is another good booster seat costing only \$20.



Adult safety belts alone (above left) do not fit some children, like 5-year-old Camron who weighs 42 pounds. The shoulder belt cuts across his face and neck, while the lap belt is much too high across his stomach instead of lower on his upper legs or pelvis. Plus his knees do not bend at the edge of the vehicle seat, so he is likely to scoot forward. The right booster seat can help. The key is to get the right one. The Jupiter Komfort Rider GTX (above middle) does not help much. The shoulder belt is routed better than with an adult belt alone, but the lap belt still is positioned too high. A better fit is in the Britax Star-Riser (above right), which routes both the lap and shoulder portions for a correct fit. But not every child 4-8 years old needs a booster seat. Laura (below), who is nearly 7 and weighs 62 pounds, fits reasonably well in an adult belt system without a booster.



The main finding of this research is that booster seats enhance belt fit in some configurations. In others, a booster makes no difference or results in a poorer fit. All of this variability makes it difficult, if not impossible, to generalize about which groups of children would benefit from a booster seat requirement. It depends on the specific child, the specific booster seat, and the specific car model in which the two are positioned.

An even more basic problem with requiring booster seats is that we in the United States do not have a clear definition of what boosters for older children are. In general, a booster seat raises a child up for a better fit in an adult belt system. Does this mean a firm cushion would qualify as a

booster seat? What about a phone book? Kids, even when they are the same age, vary widely in height and weight. Booster seats vary in size and shape. Vehicle seats vary from bench-type to contoured. Safety belt systems also vary from car model to model. So which boosters work best in which vehicles? Which children need booster seats in what vehicle models? For how long? The answers vary from child to child and vehicle to vehicle. There is too much variability to apply a single booster seat requirement to all kids of specified ages (or heights or weights) in all cars.

Another issue involves testing. The National Highway Traffic Safety Administration sets forth extensive testing requirements for infant and child restraints. All states require the use of federally approved seats. But these requirements do not apply to booster seats for children who weigh more than 50 pounds. It makes no sense to promote, let alone require, the use of devices for older children that have not been tested or approved.

Recommendations

The first order of business is to get older children in restraints regardless of what type of restraint is used. Lap/shoulder belts may have limitations, but they still greatly improve the likelihood that children will survive in crashes. State legislators already are extending child restraint laws to cover older children, which accomplishes two objectives. It closes loopholes that once allowed some children to ride unrestrained, and it extends primary enforcement of restraint laws to more children. (All child restraint laws are primary, but most adult belt laws are secondary.)

At the same time, government and other researchers are proceeding with studies to document the benefits that booster seats can and cannot provide. These studies should continue. We need to understand not only the limitations of lap/shoulder belts for children but also the aspects of booster seats that help remedy such limitations. Not all booster seats are the same, and we do not yet know which differences are the important ones. At a minimum, we need a federal definition of booster seats based on science and test requirements that are standard and realistic.

References

1. Williams, Allan F. 1976. Observed child restraint use in automobiles. *American Journal of Diseases of Children* 130:1311-17.
2. National Highway Traffic Safety Administration. May 1999. National occupant protection use survey, 1998, controlled intersection study (draft). *Research Notes*. Washington, D.C. U.S. Department of Transportation.
3. Melvin, John W.; Weber, Kathleen; and Lux, Paula. Performance of child restraints in serious crashes. *Proceedings of the 24th Annual Conference of the American Association for Automotive Medicine*, 117-31. Morton Grove, IL: American Association for Automotive Medicine.
4. Insurance Institute for Highway Safety. 2000. How state laws measure up. *Status Report* 35:10.
5. Ferguson, Susan A.; Wells, JoAnn K.; and Williams, Allan F. 2000. Child seating position and restraint use in three states. *Injury Prevention* 6:24-28.
6. National Highway Traffic Safety Administration. 2001. www.nhtsa.dot.gov/people/injury/childps/Boosterseat/talking.html. Washington, D.C. U.S. Department of Transportation.

Special issue: state traffic safety laws

STATUS

Volume 35, Number 10, December 20, 2000

REPORT

INSURANCE INSTITUTE
FOR HIGHWAY SAFETY

BEST LAWS

- ✓ California
- ✓ District of Columbia
- ✓ Maryland

5

WORST LAWS

- ✗ Montana
- ✗ South Carolina
- ✗ South Dakota

how state laws
**MEASURE
UP**



State traffic laws rated good to poor, revealing nation's best and worst

Ratings based on likelihood laws will enhance traffic safety by influencing driver behavior

Traffic safety laws are on the books in every state to reduce deaths and injuries in crashes by changing driver behavior. The idea is to deter dangerous behavior like driving while impaired by alcohol and encourage beneficial habits like buckling up safety belts.

How do these laws compare from state to state? Overall the strongest laws in the United States are in California, the District of Columbia, and Maryland. The weakest traffic safety laws are those in Montana, South Carolina, and South Dakota.

Research has repeatedly shown the benefits of good traffic safety laws that are enforced. This has been established as the only way to achieve high belt use rates, for example. The starting point is to put a good law on the books, which is why the Institute has conducted a comprehensive assessment of key traffic safety laws in all 50 states and the District of Columbia.

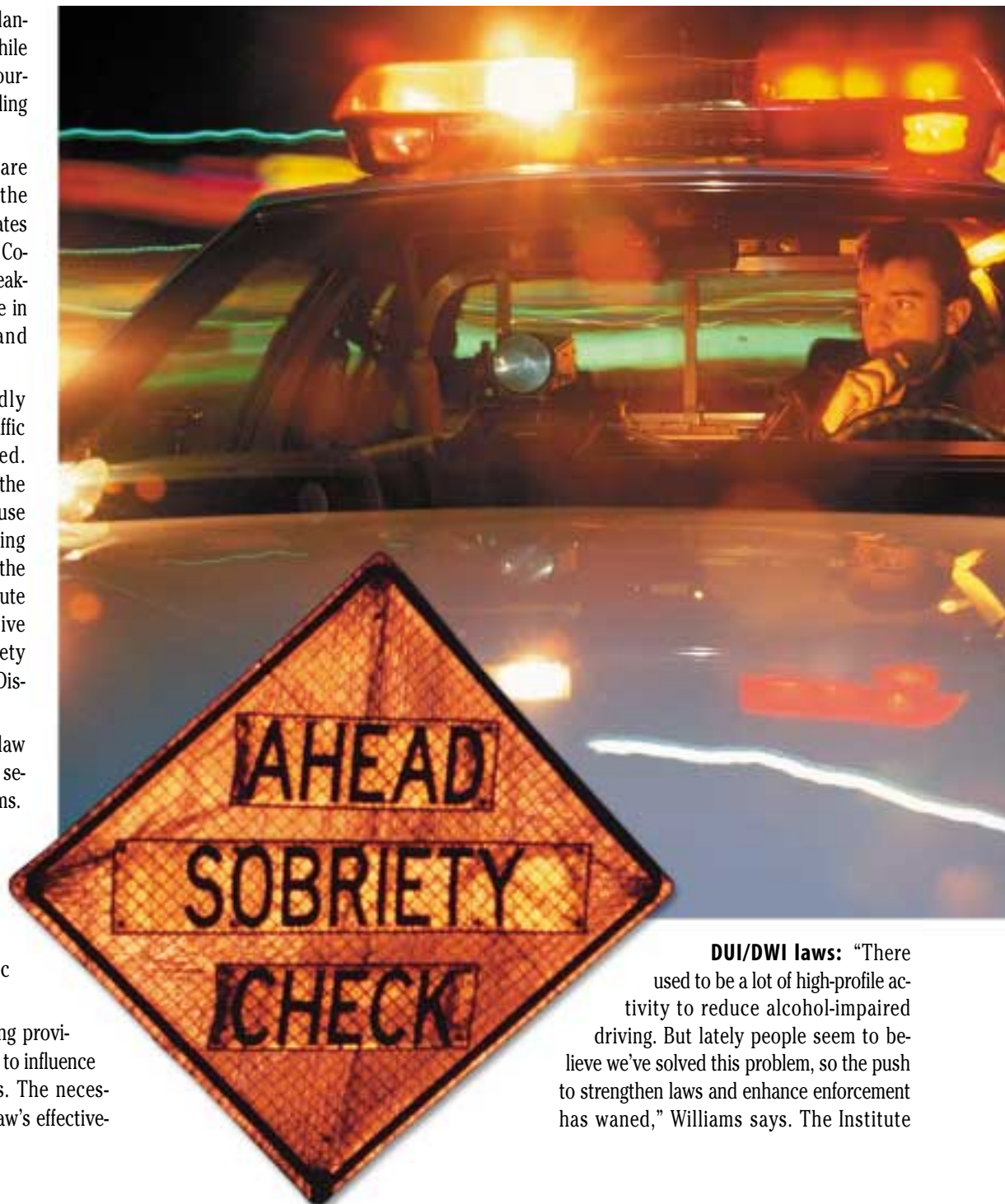
"We didn't evaluate every law by any stretch," says Institute senior vice president Allan Williams. "We looked at provisions of selected laws that research shows have improved driver behavior. Clearly some states do a better job than others of getting good traffic safety laws on the books."

Even if a law includes strong provisions, enacting it isn't sufficient to influence the behavior of many drivers. The necessary next step to maximize a law's effective-

ness is to publicize and enforce it. "People don't usually comply with traffic laws because they think doing so will prevent crashes or save lives. People comply if they believe there's a real chance of getting a ticket or points on their license if they don't. This is why we didn't give high marks to laws that are on the books but are hard to enforce," Williams explains.

Institute researchers assessed alcohol-impaired driving laws, young driver licens-

ing laws, safety belt use laws, child restraint use laws, motorcycle helmet use laws, and laws allowing camera enforcement of red light violations. A rating of good, acceptable, marginal, or poor is assigned to each law, or set of related laws, in each state (see pp. 4-5). These ratings reflect how well the provisions of a given law can be expected to improve safety, based on research identifying what works and doesn't work to achieve such improvements.



DUI/DWI laws: "There used to be a lot of high-profile activity to reduce alcohol-impaired driving. But lately people seem to believe we've solved this problem, so the push to strengthen laws and enhance enforcement has waned," Williams says. The Institute

has evaluated four separate DUI/DWI laws in all states and the District of Columbia.

1. Under administrative license revocation laws, the license of every driver arrested for DUI/DWI is automatically revoked for a specified time. The success of such laws in reducing fatal crashes has been documented since the late 1980s (see *Status Report*, March 14, 1988). The best administrative license revocation laws require driver's license removal for at least 30 days with few or no exceptions for hardship.

"Administrative license revocation is the cornerstone of an effective DUI or DWI program," Williams says. Yet Kentucky, Michigan, Montana, New Jersey, Pennsylvania, Rhode Island, South Carolina, South Dakota, and Tennessee still don't have such laws on the books. Another 17 states don't require revocations lasting at least 30 days.

2. Under the laws in 21 jurisdictions, it's illegal to drive with a blood alcohol concentration, or BAC, at or above 0.08 percent (elsewhere it's usually 0.10 percent). Research indicates that 0.08 laws have reduced fatal crashes in which alcohol is a factor.

3. Across the United States, it's illegal for people younger than 21 to drive with any measurable BAC. All jurisdictions have such laws, dubbed zero tolerance, because in 1998 the federal government began withholding highway funds from states without the provisions. But the laws are far easier to enforce in some states than others. Institute researchers found that laws in Massachusetts, Nevada, New Jersey, New Mexico, North Dakota, Rhode Island, and Tennessee are virtually unenforceable because po-

lice must suspect a young driver has a high BAC before administering a breath test to check for violations of the zero tolerance law, under which any measurable BAC constitutes a violation (see *Status Report*, March 11, 2000; on the web at www.highwaysafety.org).

4. High-profile sobriety checkpoints are effective ways to deter alcohol-impaired driving. They increase drivers' perceptions that apprehension is likely to follow the offense. Yet checkpoints aren't permitted in Idaho, Iowa, Michigan, Minnesota, Montana, Oregon, Rhode Island, Texas, Washington, Wisconsin, or Wyoming.

Graduated licensing laws: The newest drivers are the most hazardous because they're not only inexperienced but also im-



mature. Teenage drivers have the highest crash risk of any group, and 16 year-olds pose a much greater risk than older teens. This is why graduated licensing is being embraced by state legislators. Its purpose is to protect beginners by phasing in full driving privileges so teenagers graduate to unrestricted licenses over at least a year (see *Status Report*, March 11, 2000; on the web at www.highwaysafety.org).

Beginning with Florida in 1996, "graduated licensing has caught on rapidly," Williams points out. "An impetus has been media attention on young driver crashes, especially fatal crashes. This attention has kept the issue in the forefront and helped make state legislators receptive to graduated licensing."

Now only nine states (Alabama, Arizona, Hawaii, Kansas, Montana, Nevada, Oklahoma, Texas, and Wyoming) fail to include any of the key provisions of graduated licensing. In the other 42 jurisdictions, there's wide variation in the strength of the provisions.

Williams explains that "the most important aspect of graduated licensing is to restrict driving once a beginner gets a license.

GOOD LAWS

ALCOHOL

Alabama
California
Florida
Hawaii
Kansas
New Hampshire
Utah
Vermont

YOUNG DRIVERS

California
District of Columbia
Massachusetts
New Jersey
Oregon
Tennessee
Washington

SAFETY BELT USE

California
District of Columbia
Oregon

CHILD RESTRAINT USE

Alaska
California
Colorado
Connecticut
Delaware
District of Columbia
Georgia
Hawaii
Kansas
Louisiana
Maryland
Michigan
Missouri
New Hampshire
New York
North Carolina
North Dakota
Oklahoma
Oregon
Rhode Island
Tennessee
Texas
Utah
Vermont
Virginia
Washington

Traffic safety laws: how they rate

	DUI/ DWI	Young driver licensing	Safety belt use	Child restraint use	Motorcycle helmet use	Red light camera
Alabama	Green	Red	Yellow	Red	Green	Red
Alaska	Yellow	Orange	Orange	Green	Red	Red
Arizona	Yellow	Red	Orange	Red	Red	Yellow
Arkansas	Yellow	Orange	Orange	Red	Red	Red
California	Green	Green	Green	Green	Green	Green
Colorado	Yellow	Yellow	Orange	Green	Red	Green
Connecticut	Yellow	Orange	Yellow	Green	Red	Red
Delaware	Yellow	Yellow	Orange	Green	Red	Green
District of Columbia	Yellow	Green	Green	Green	Green	Green
Florida	Green	Yellow	Orange	Orange	Red	Red
Georgia	Yellow	Yellow	Yellow	Green	Green	Red
Hawaii	Green	Red	Yellow	Green	Red	Green
Idaho	Yellow	Orange	Orange	Red	Red	Red
Illinois	Yellow	Yellow	Orange	Red	Red	Red
Indiana	Yellow	Yellow	Yellow	Red	Red	Red
Iowa	Yellow	Yellow	Yellow	Red	Red	Red
Kansas	Green	Red	Orange	Green	Red	Red
Kentucky	Yellow	Orange	Orange	Orange	Red	Red
Louisiana	Yellow	Yellow	Yellow	Green	Red	Red
Maine	Yellow	Orange	Orange	Orange	Red	Red
Maryland	Yellow	Yellow	Yellow	Green	Green	Green
Massachusetts	Yellow	Green	Orange	Orange	Green	Red
Michigan	Red	Yellow	Yellow	Green	Green	Red
Minnesota	Yellow	Orange	Orange	Red	Red	Red
Mississippi	Yellow	Orange	Orange	Red	Green	Red
Missouri	Yellow	Yellow	Orange	Green	Green	Red
Montana	Red	Red	Orange	Orange	Red	Red
Nebraska	Yellow	Orange	Orange	Orange	Green	Red
Nevada	Yellow	Red	Orange	Orange	Green	Red
New Hampshire	Green	Yellow	Red	Green	Red	Red

	DUI/ DWI	Young driver licensing	Safety belt use	Child restraint use	Motorcycle helmet use	Red light camera
New Jersey	POOR	GOOD	ACCEPTABLE	POOR	GOOD	POOR
New Mexico	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	POOR	POOR	POOR
New York	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	GOOD	GOOD	MARGINAL
North Carolina	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	GOOD	GOOD	MARGINAL
North Dakota	ACCEPTABLE	MARGINAL	MARGINAL	GOOD	POOR	POOR
Ohio	ACCEPTABLE	ACCEPTABLE	MARGINAL	POOR	POOR	ACCEPTABLE
Oklahoma	ACCEPTABLE	POOR	ACCEPTABLE	GOOD	POOR	POOR
Oregon	ACCEPTABLE	GOOD	GOOD	GOOD	GOOD	MARGINAL
Pennsylvania	MARGINAL	ACCEPTABLE	MARGINAL	POOR	GOOD	POOR
Rhode Island	POOR	ACCEPTABLE	MARGINAL	GOOD	POOR	POOR
South Carolina	MARGINAL	MARGINAL	MARGINAL	MARGINAL	POOR	POOR
South Dakota	MARGINAL	MARGINAL	MARGINAL	POOR	POOR	POOR
Tennessee	POOR	GOOD	MARGINAL	GOOD	GOOD	POOR
Texas	ACCEPTABLE	POOR	ACCEPTABLE	GOOD	POOR	POOR
Utah	GOOD	MARGINAL	MARGINAL	GOOD	POOR	POOR
Vermont	GOOD	ACCEPTABLE	MARGINAL	GOOD	GOOD	POOR
Virginia	ACCEPTABLE	MARGINAL	MARGINAL	GOOD	GOOD	MARGINAL
Washington	ACCEPTABLE	GOOD	MARGINAL	GOOD	GOOD	MARGINAL
West Virginia	ACCEPTABLE	ACCEPTABLE	MARGINAL	MARGINAL	GOOD	POOR
Wisconsin	ACCEPTABLE	ACCEPTABLE	MARGINAL	MARGINAL	POOR	POOR
Wyoming	ACCEPTABLE	POOR	MARGINAL	MARGINAL	POOR	POOR

LEGEND



GOOD



ACCEPTABLE



MARGINAL



POOR

Helmet use laws in 30 states don't cover cyclists of all ages



unfold page to see how traffic safety laws are rated



HOW LAWS ARE RATED

Alcohol laws

GOOD: an administrative license revocation law that mandates at least a 30-day revocation for a violation with few or no exceptions for hardship; a law under which it's illegal to drive with a blood alcohol concentration (BAC) at or above 0.08 percent; a readily enforceable law under which it's illegal for anyone younger than 21 to drive with any measurable BAC (enforcement is impeded in some states because police must suspect that a young driver has a high BAC before administering an alcohol test to check for any measurable BAC); **and** sobriety checkpoints must be permitted

ACCEPTABLE: an administrative license revocation law (not necessarily including a 30-day revocation) **or** a law under which it's illegal to drive with a BAC at or above 0.08 percent **plus** at least one of the other provisions listed above (see **GOOD**)

MARGINAL: a readily enforceable law under which it's illegal for anyone younger than 21 to drive with any measurable BAC **plus** no limitations on conducting sobriety checkpoints

POOR: one or none of the four provisions listed above (see **GOOD**)

Young driver licensing laws

GOOD: minimum 6-month learner's phase; once licensed, beginners are subject to restrictions beginning at 10 p.m. or earlier and extending to 5 a.m. and/or a restriction that allows no more than one passenger when driving unsupervised; **and** beginners must wait until age 17 for their unrestricted licenses

ACCEPTABLE: law includes the late evening/night driving restriction and/or passenger restriction listed above, **and** beginners must wait until age 17 for their unrestricted licenses; **or** law includes a minimum learner's phase (any length) plus some restrictions on driving hours and/or passengers, **and** beginners must wait until age 16½ for their unrestricted licenses

MARGINAL: law includes a minimum learner's phase (any length) **plus**, once a beginner is licensed, some restrictions on driving hours and/or passengers; **or** law includes only a learner's phase lasting a minimum of 6 months; **or** law includes only restrictions on driving hours and/or passengers once a beginner is licensed

POOR: minimum learner's phase shorter than 6 months **and** no restrictions on driving by beginners

Safety belt use laws

GOOD: law allows primary enforcement (police may stop and ticket motorists for belt law violations alone); fines and/or license points are imposed for violations; **and** law applies to occupants in rear as well as front seats

ACCEPTABLE: law allows primary enforcement but doesn't require belt use in rear seats

MARGINAL: law allows secondary enforcement (police must stop motorists for other violation before enforcing belt law)

POOR: either no belt use law **or** law doesn't impose any fine or license points

Child restraint use laws

GOOD: all children younger than 13 in all vehicle seats are required to ride in infant restraints, child seats, or safety belts; enforcement is primary (see above for definition of primary enforcement)

MARGINAL: all children younger than 13 in all seats are required to ride in infant restraints, child seats, or safety belts; enforcement under adult belt laws may be secondary (see above for definition of secondary enforcement)

POOR: some children younger than 13 aren't required to be restrained

Motorcycle helmet use laws

GOOD: all motorcycle riders must wear helmets

POOR: either no helmet use law **or** law covers only some riders

Red light camera enforcement laws

GOOD: law grants specific statewide authority for camera enforcement

ACCEPTABLE: operational camera enforcement without specific state authority

MARGINAL: law restricts authority for camera enforcement to specific communities only

POOR: no law grants authority for camera enforcement and no operational camera enforcement

GOOD LAWS

1 MOTORCYCLE HELMET USE LAWS

Alabama
California
District of Columbia
Georgia
Maryland
Massachusetts
Michigan
Mississippi
Missouri
Nebraska
Nevada
New Jersey
New York
North Carolina
Oregon
Pennsylvania
Tennessee
Vermont
Virginia
Washington
West Virginia

2 3 RED LIGHT CAMERA ENFORCEMENT

California
Colorado
Delaware
District of Columbia
Hawaii
Maryland

States accomplish this by prohibiting unsupervised driving in high-risk situations like at night or with passengers. The tougher these restrictions are and the longer they last past a beginner's 16th birthday, the higher we rated a state's licensing law covering young drivers. Also important is an initial learning phase lasting six months or longer when only driving under supervision is allowed."

Safety belt use laws: In 1984, New York enacted the nation's first law requiring motorists to buckle up. Within 2 years, 22 jurisdictions had such laws, and now all but New Hampshire does. But the provisions vary widely.

For example, most states still don't allow police to stop motorists solely for belt violations (primary enforcement). Enforcement is secondary, which means motorists have to be stopped for some other violation first. This impedes enforcement and explains, in part, why belt use is significantly lower in the United States than in Canada and elsewhere. The laws in only 17 U.S. states and the District of Columbia allow primary enforcement, and even in these states the laws don't always cover people riding in rear seats.

"One thing we know from repeated research conducted since the early 1980s is that belt law effectiveness depends on publicity and enforcement," Williams says (see *Status Report*, Jan. 15, 2000; on the web at www.highwaysafety.org). "It's harder to enforce a secondary law. This is why, when we rated state belt use laws, we considered whether the provisions for enforcement are primary or secondary. We also considered whether all occupants are covered."



Child restraint laws:

To evaluate these, the Institute assessed not only the comprehensiveness of state laws covering very young children but also the adequacy of adult belt laws, which cover older children. What matters most is whether these laws together provide primary coverage for all children younger than 13 in all seats or allow some children to ride unrestrained.

For example, children too old to be covered under the child restraint laws in 14 states are pro-

protected by adult belt laws that apply only to people riding in the front seat. Thus, it's perfectly legal for children to ride unrestrained in rear seats.

"This makes no sense," Williams says. "The back seat is where we tell parents it's safest for their children to ride, so restraint laws should cover the kids who sit there."

Motorcycle helmet use laws:

By the 1970s, helmet laws had been enacted in virtually all states. All riders were covered, and injuries among cyclists were reduced. (Wearing a helmet reduces the risk of death in a motorcycle crash by about one-third). But by 1980 most states had abandoned their motorcycle helmet laws or substantially weakened them by applying them only to riders younger than a specified age, usually 18.

Now all riders are covered in only 21 jurisdictions. Helmet laws aren't on the books in Colorado, Illinois, or Iowa, and they're watered down in another 27 states.



"You might as well not have a law that doesn't apply to all riders," Williams says, "because so few motorcyclists are the younger riders covered under the weak laws. Helmet use rates in states with limited laws are about the same as in states without any laws at all" (see *Status Report*, April 4, 1998; on the web at www.highwaysafety.org). For this reason, the Institute assigned poor ratings to the laws in all states where helmet laws don't apply to all riders.

Red light camera enforcement: Running red lights is a good example of "everyday" aggressive driving. It's less spectacular but a lot more common than the occasional headline-grabbing instances of aggressive driving known as road rage.

Until a few years ago, red light violators had to be apprehended and ticketed one by one. The odds of this were so small that offenders found little reason to change their ways. But now they do, at least where red light cameras have been installed to snap photos of vehicles whose drivers deliberately run red lights. Then the violators are ticketed by mail.

Such programs reduce red light running by about 40 percent (see *Status Report*, July 11, 1998; on the web at www.highwaysafety.org), but there's a problem. Relatively few red light camera programs are operational, in many cases because state laws haven't been enacted to authorize them. In only six jurisdictions (California, Colorado,

Delaware, the District of Columbia, Hawaii, and Maryland) is camera enforcement specifically authorized for use statewide.

"Cameras shouldn't merely be permitted in the United States. They should be in wide use, as in other countries," Williams says. "Red light running kills hundreds of people every year, more than half of them struck by the signal violators. To make a dent in this toll, we've got to encourage the use of the camera technology we know will deter the would-be violators."

For more information: Specific provisions of selected traffic safety laws in all 50 states and the District of Columbia are detailed at www.highwaysafety.org. Click on "safety facts" and then choose "state laws."



STATUS REPORT

INSURANCE INSTITUTE
FOR HIGHWAY SAFETY

NON-PROFIT ORG.
U.S. POSTAGE
PAID
PERMIT NO. 252
ARLINGTON, VA

Special issue

1005 N. Glebe Rd., Arlington, VA 22201
703/247-1500 Fax 247-1588
Internet: www.highwaysafety.org
Vol. 35, No. 10, December 20, 2000

This special issue focuses on state traffic safety laws. Recent special issues have focused on the following subjects:

Driver death rates	35:7 (2000)
Federal airbag rule	35:6 (2000)
Cosmetic repair parts	35:2 (2000)
Graduated licensing	34:10 (1999)
Vehicle compatibility in crashes	34:9 (1999)
Child safety	34:8 (1999)
Neck injuries	34:5 (1999)
Vehicle safety advancements	34:4 (1999)
Pedestrian deaths, injuries	34:3 (1999)
Truck safety	33:8 (1998)
Urban crashes	33:4 (1998)
Crash compatibility	33:1 (1998)

306
traffic safety
laws evaluated:

about
one-fourth
are good, about
one-third are poor,
and the rest are
rated acceptable
or marginal

Contents may be republished with attribution.
This publication is printed on recycled paper.

ISSN 0018-988X

The Insurance Institute for Highway Safety is an independent, nonprofit, scientific and educational organization dedicated to reducing the losses — deaths, injuries, and property damage — from crashes on the nation's highways. The Institute is wholly supported by automobile insurers:

Alfa Insurance
Allstate Insurance Group
American Express Property and Casualty
American Family Insurance
American National Property and Casualty
Amica Mutual Insurance Company
Amwest Insurance Group
Auto Club South Insurance Company
Automobile Club of Michigan Group
Baldwin & Lyons Group
Bituminous Insurance Companies
Brotherhood Mutual
California Insurance Group
California State Automobile Association
Cameron Companies
CGU Insurance
Chubb Group of Insurance Companies
Church Mutual
Colonial Penn
Concord Group Insurance Companies
Cotton States
Country Companies
Erie Insurance Group
Farmers Insurance Group of Companies
Farmers Mutual of Nebraska

Fidelity & Deposit
Foundation Reserve Insurance Company
Frankenmuth
The GEICO Group
General Casualty Insurance Companies
GMAC Insurance Group
Grange Insurance
Harleysville Insurance Companies
The Hartford
Idaho Farm Bureau
Instant Auto Insurance
Kansas Farm Bureau
Kemper Insurance Companies
Liberty Mutual Insurance Group
Merastar
Mercury General Group
MetLife Auto & Home
Middlesex Mutual
Montgomery Insurance Companies
Motor Club of America Insurance Company
Motorists Insurance Companies
MSI Insurance Companies
National Grange Mutual
Nationwide Insurance
North Carolina Farm Bureau

Northland Insurance Companies
Oklahoma Farm Bureau
Old Guard Insurance
Oregon Mutual Group
OrionAuto
Palisades Safety and Insurance Association
Pekin Insurance
PEMCO Insurance Companies
The Progressive Corporation
The Prudential
Response Insurance
Rockingham Group
Royal & SunAlliance
SAFECO Corporation
SECURA
Shelter Insurance Companies
State Auto Insurance Companies
State Farm Insurance Companies
The St. Paul Companies
Tokio Marine
USAA
Virginia Mutual Insurance Company
Warrior Insurance Group
Yasuda Fire & Marine of America
Zurich U.S.